

## **House Natural Resources Committee Hearing on The Rebuilding and Privatization of the Puerto Rico Electric Power Authority (PREPA).**

Testimony by Marla D. Perez Lugo, PhD

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Honorable Chairman and members of the committee, my name is Marla D. Perez Lugo. I am a professor of Environmental Sociology at University of Puerto Rico-Mayaguez and member of the steering committee of the UPR's National Institute for Energy and Island Sustainability (INESI for its acronym in Spanish)<sup>1</sup>. I come to you to talk about a subject that is seldom at the forefront of energy discussions, and that has certainly been neglected during the processes of PREPA's privatization and post-Maria reconstruction. This is the issue of energy governance, specifically the lack of transparency, lack of accountability, lack of real stakeholder representation, and the absence of a clear mission for PREPA in the 21<sup>st</sup> century<sup>2</sup>. Our energy governance is defective, not since hurricane Maria, but since at least

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<sup>1</sup> I am a Rutgers University trained environmental sociologist, recognized in disaster sociology and electrical systems sociology. As an academic, I focus on the topics of energy transitions and vulnerability to natural hazards. As member of INESI, I have co-designed and supported stakeholder engagement programs such as the Energy Stakeholder Roundtable and the Puerto Rico Energy Stakeholder Forum. Also, as part of INESI's steering committee, I have overseen the identification and interconnection of over 90 resources in energy and sustainability related areas (from community psychology to renewable energy systems), throughout the UPR's eleven campuses. Our experts are directly engaged in enhancing our community's resilience through knowledge sharing, capacity building, and innovation; and can certainly contribute to Puerto Rico's energy transition towards sustainability, both in social and technological aspects.

<sup>2</sup> The concept of governance refers to the way in which all stakeholders, individuals/organizations/entities that are going to be affected by a course of public action or inaction, and the way they participate in the plurality of decision-making processes that occur at all stages of the energy policy process. For Kooiman (1993b: 258), governance can be seen as the pattern or structure that emerges in a socio-political system as 'common' result or outcome of the interacting intervention efforts of all involved actors. This pattern cannot be reduced to one particular actor or group of actors. In other words, policy outcomes are not the product of actions by central government. The central government may pass a law but subsequently it interacts with local government, health authorities, the voluntary sector, the private sector and, in turn, they interact with one another. Kooiman distinguishes between governing (or goal-directed interventions) and governance which is the result (or the total effects) of social-political-administrative interventions and interactions. There is order in the policy area but it is not imposed from on high but emerges from the negotiations of the several affected parties. These interactions are based on the recognition of (inter)dependencies. No single actor, public or private, has all knowledge and information required to solve complex dynamic and diversified problems; no actor has sufficient overview to make the application of needed instruments effective; no single actor has sufficient action potential to dominate unilaterally in a particular governing model. So, all the actors in a particular policy area need one another. Each can contribute relevant knowledge or other resources. No one has all the relevant knowledge or resources to make the policy work. Governing confronts new challenges.

the 1980s when PREPA reached its goal of total rural electrification. At that point, PREPA was not given a new mission, nor the people of Puerto Rico were given the space to develop a vision to guide it. Since then, PREPA has not only been at the center of PR's energy policy process, and all economic development for that matter, but it has also been able to (the fact) keep other important stakeholders out of it. Most importantly, for decades PREPA has served as an instrument for the capture of such processes by political parties in Puerto Rico. It has become a highly-centralized entity, where power (both political and electrical) is concentrated. Even former PREPA's Executive Director Ricardo Ramos has stated in Congressional Hearings that political party affiliation is one of the main criteria in the organization's human resource management strategies<sup>3</sup>. In that sense, PREPA has been capable of sustaining a governance model characteristic of the 19<sup>th</sup> century (centralized, exclusive, self-reinforcing and self-serving) in the 21<sup>st</sup> century.

Now, the same political parties that have captured PREPA for decades, and have enjoyed the benefits of that capture, tell us that privatization will solve all our electricity problems. They say that private entities are better at managing common resources like our electric system, in a cheaper and more efficient way. However, the literature in environmental sociology, as well as our own experience with privatization<sup>4</sup>, and even Nobel prizes in

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Instead of relying on the state or the market, socio-political governance is directed at the creation of patterns of interaction in which political and traditional hierarchical governing and social self-organization are complementary, in which responsibility and accountability for interventions is spread over public and private actors (Kooiman 1993b: 252). Central government is no longer supreme. The political system is increasingly differentiated. We live in 'the center-less society' (Luhmann 1982: xv); in the polycentric state characterized by multiple centers. The task of government is to enable socio-political interactions; to encourage many and varied arrangements for coping with problems and to distribute services among the several actors. Such new patterns of interaction abound: for example, self- and co-regulation, public-private partnerships, co-operative management, and joint entrepreneurial ventures. The socio-cybernetic approach highlights: the limits to governing by a central actor, claiming there is no longer a single sovereign authority. In its place, there is a great variety of actors specific to each policy area; interdependence among these social-political-administrative actors; shared goals; blurred boundaries between public, private and voluntary sectors; and multiplying and new forms of action, intervention and control. Governance is the result of interactive social-political forms of governing. See

[https://www.researchgate.net/profile/R\\_A\\_W\\_Rhodes/publication/246335680\\_Governance\\_and\\_Public\\_Administration/links/5a11be7d458515cc5aa9c6a9/Governance-and-Public-Administration.pdf](https://www.researchgate.net/profile/R_A_W_Rhodes/publication/246335680_Governance_and_Public_Administration/links/5a11be7d458515cc5aa9c6a9/Governance-and-Public-Administration.pdf).

<sup>3</sup> See video of former PREPA's Executive Director Ricardo Ramos's testimony in front of the House Committee for Energy and Natural Resources at <http://www.radioisla1320.com/vivo-gobernador-ricardo-ramos-congreso/> or <https://www.facebook.com/RadioIslaTV/videos/1529279283774471/>. His comment is in minute 44:50. References to his comment can be found also in <https://www.metro.pr/pr/noticias/2017/11/14/ramos-admite-la-ae-e-esta-sujeta-la-intervencion-politica.html>

<sup>4</sup> See for example the privatization of PRASA in the 1990's (<http://www.ipsnoticias.net/2001/06/boletin-ambiente-puerto-rico-se-hunde-la-compania-de-aguas/>), the Centers for Diagnosis and Treatment in 1993 ([http://www.paho.org/hq/dmdocuments/2010/Perfil\\_Sistema\\_Salud-Puerto\\_Rico\\_2007.pdf](http://www.paho.org/hq/dmdocuments/2010/Perfil_Sistema_Salud-Puerto_Rico_2007.pdf)), the marine transportation company (las Navieras) in 1995 (Thesis (M.P.A.)--Universidad de Puerto Rico, 1995), the Puerto Rico Telephone Company in 1998 (<https://www.elnuevodia.com/negocios/consumo/nota/privatizaciondelatelefonicaaeropuerto-1457265/>), or the concession of highway management in the 2000's (<https://www.elnuevodia.com/noticias/locales/nota/metropistasanunciaunnuovoaumentoenelcostodelospe>

economics<sup>5</sup>, suggest that most of the problems with our energy governance and PREPA's capture more than likely will not be solved by privatizing PREPA's assets<sup>6</sup>. In fact, before deciding between privatization yes or no, we must ask ourselves what are PREPA's real problems and if those problems could be resolved by privatizing it. If that is the case, who will regulate the private entity? The same government that could not execute because of political capture? The government's capacity to "regulate", is it influenced by that same condition?

Let us explore a list of some of PREPA's main problems and issues:

1. **Lack of transparency** – According to Rappert (2012) "manufactured ignorance", also called "negative knowledge", are knowledge gaps created on purpose for strategic reasons<sup>7</sup>. Two crude examples are the official accounting of deaths related to the impact of hurricane Maria<sup>8</sup> and the sudden changes in the way in which PREPA reported progress during the reconstruction process, switching from reporting "percentage of clients reconnected" to "percentage of generation recovered". In fact, even the DOE questioned at some point the veracity of the data provided by PREPA and stopped reporting progress in its electronic page.

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[ajes-2464443/](http://periodismoinvestigativo.com/2013/01/el-negocio-millonario-tras-el-aeropuerto-luis-munoz-marin/)), and the Luis Muñoz Marín International Airport in 2013 (<http://periodismoinvestigativo.com/2013/01/el-negocio-millonario-tras-el-aeropuerto-luis-munoz-marin/>). Also, the same telecommunications private companies that intensely lobbied to impede the use of PREPA-Net fiber optics infrastructure in governmental units (<https://www.elnuevodia.com/negocios/consumo/nota/sintregualabatallacontraprepanet-2166022/>), failed to reestablish service across the PR archipelago in almost a year after the impact of hurricane Maria (<https://www.elnuevodia.com/negocios/empresas/nota/fallobletrasmariaenlascomunicaciones-2393539/>). For a US based approach also see <https://www.citizen.org/sites/default/files/waves.pdf>

<sup>5</sup> See Eleonor Ostrom

([https://www.researchgate.net/profile/Jason\\_Potts/publication/227350049\\_A\\_Nobel\\_Prize\\_for\\_Governance\\_and\\_Institutions\\_Oliver\\_Williamson\\_and\\_Elinor\\_Ostrom/links/02e7e531cff991bc01000000/A-Nobel-Prize-for-Governance-and-Institutions-Oliver-Williamson-and-Elinor-Ostrom.pdf](https://www.researchgate.net/profile/Jason_Potts/publication/227350049_A_Nobel_Prize_for_Governance_and_Institutions_Oliver_Williamson_and_Elinor_Ostrom/links/02e7e531cff991bc01000000/A-Nobel-Prize-for-Governance-and-Institutions-Oliver-Williamson-and-Elinor-Ostrom.pdf)) and John Nash ([https://www.jstor.org/stable/pdf/2564872.pdf?casa\\_token=mlhewhHN2V4AAAAA:degsh\\_We2PSAo1pYCq\\_nUGDTAn\\_R9-0r-SU9KmxwOZf4Xlo-v8ke0NsDnT6IG-eFKv9-Y0W2pvOAczwsstCFh-dp4\\_1jvKvkSLw1purSDO-PTX0FV0iA](https://www.jstor.org/stable/pdf/2564872.pdf?casa_token=mlhewhHN2V4AAAAA:degsh_We2PSAo1pYCq_nUGDTAn_R9-0r-SU9KmxwOZf4Xlo-v8ke0NsDnT6IG-eFKv9-Y0W2pvOAczwsstCFh-dp4_1jvKvkSLw1purSDO-PTX0FV0iA)).

<sup>6</sup> The generalized proposal for the privatization of PREPA includes, not the total sell of assets, but the uncoupling the three main aspects of its operations: the selling of the generation capacity (which is the part that actually generates revenue) and the concession of the transmission/distribution system and customer service, which are the most expensive, for private administration (<http://periodismoinvestigativo.com/2019/01/public-power-versus-privatized-power-the-debate-in-puerto-rico-before-and-after-hurricane-maria/>).

<sup>7</sup> Some examples presented by the author includes the knowledge and research gaps created by the tobacco industry to evade a causal link between smoking and cancer, and the oil companies with the issue of climate change (Rappert, 2012).

<sup>8</sup> The Government of Puerto Rico kept the official number of deaths related to Hurricane Maria in sixty-four (64) for a year, even in the face of media reports and academic research suggesting a much higher number. See <https://www.vox.com/2018/9/20/17871330/hurricane-maria-puerto-rico-damage-death-toll-trump> and <https://www.usatoday.com/story/news/2018/12/04/hurricane-maria-economic-impact-puerto-rico/2209231002/>.

Another more subtle case of manufactured ignorance is the exclusion of scientific data and local expertise from PREPA's decision-making processes, the reconstruction post Maria and energy policy in general. For example, PREPA's first Integrated Resources Plan, developed by a private company<sup>9</sup>, excluded scientific information on physical changes in the location of PREPA's main generation plants caused by climate change. According to studies conducted by our faculty affiliates, Aguirre, Costa Sur, and Palo Seco are going to be under still water after the next category 3 hurricane, or even a strong tropical storm<sup>10</sup>. The same happened during the early stages of the reconstruction post-Maria, when the steering Committee of the UPR's National Institute for Energy and Island Sustainability offered unsuccessfully the expertise of one of the biggest programs in electrical engineering in the nation, and the biggest repository of knowledge about our electrical system. Great minds in that program have been thinking, researching, and publishing about the sustainability of our electrical system for decades. They also have developed reconstruction strategies that will not only help to speed up the process but also will save lives in future events<sup>11</sup>. In my opinion that information should be included in the decisions associated to our energy future and overall reconstruction post-Maria.

2. **Lack of accountability**<sup>12</sup> - PREPA has not been held accountable many times in the last decades for decisions that affect negatively the health, the lives, the education and the general wellbeing of many communities including Cataño, Guayama, and Salinas, among others. For example, according to epidemiological studies conducted at the UPR School of Public Health, PREPA's contract with AES, owner of the coal generation plant in Guayama, has cost the lives and health of thousands of Puerto Ricans, US citizens<sup>13,14</sup>. Another example of PREPA's lack of accountability is when its leadership, weeks after Hurricane Maria, publicly announced while most of our population was still suffering from the longest

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<sup>9</sup> Siemens Industry, Integrated Resource Plan Volume I: Supply Portfolios and Futures Analysis, prepared for PREPA, Draft for PREC Review (August 17, 2015), p. 3-1, 4-1, 4-2, 6-3.

<sup>10</sup>See <https://coastal hazardspr.wordpress.com/>

<sup>11</sup> See Dr. Marcel Castro's policy brief regarding the Consumer Hours of Loss Electric Services (or CHOLES) and proposing an outside in strategy for the reconstruction of Puerto Rico's electrical system that combines GRID restoration with small residential photovoltaic systems to provide essential loads in the most vulnerable communities (<http://bit.ly/CHoLES>).

<sup>12</sup> Accountability refers to the concept of answerability for one's actions or behavior. This involves the means by which public agencies and their workers manage the diverse expectations generated within and outside the organization (Romzek and Dubnick, 1987). As defined by Romzek and Dubnick (1987) while analyzing the explosion of the Challenger, administrators and agencies are accountable to the extent that they are required to answer for their actions.

<sup>13</sup> Bonilla-Soto, L A and Cruz, C. "Mortality and air pollution in Guayama and Fajardo, Puerto Rico: an ecological study of time series". Press conference presentation at the Puerto Rico's College of Physicians and Surgeons. December 18, 2018.

<sup>14</sup> Bonilla-Soto, L A . "Prevalence of chronic diseases at the communities of Miramar and Puerto de Jobos, Guayama, Puerto Rico: a survey research project". Press conference presentation at the Puerto Rico's College of Physicians and Surgeons. December 18, 2018.

blackout in US history<sup>15</sup>, that two hundred communities in the mountain region of Puerto Rico were not going to be reconnected to the grid due to cost-benefit analysis. It seems like PREPA has given up on what used to be its main mission, the wellbeing of the people of Puerto Rico, and nobody is holding it accountable.

To understand how this happened, we need to look at the problem of accountability in PREPA from two dimensions, internal and external accountability structures, and the direct connection between these two. The quality and operationalization of PREPA's internal accountability structures will largely depend on the capacity of external accountability structures to effectively enforce and regulate the behavior of the public corporation. For decades, the main external accountability structure to which PREPA has had no alternative but to answer to has been the political party in power. This has had the effect of corroding and virtually dismantling internal accountability structures inside the public corporation such as PREPA's Board of Governors. From this perspective, the value of different stakeholders in PREPA such as the UTIER, becomes very important as they act as the facto whistle blowers of the aforementioned corrosive processes.

This brings us to the third problem which is lack of stakeholder representation.

3. **Lack of real stakeholder representation** – Historically, important stakeholders have been systematically excluded not only from PREPA's decision-making processes, but also from energy policy in general and Post-Maria reconstruction as well. Examples of that exclusion is the composition of the Board of Directors of PREPA. Currently PREPA's Board includes seven members<sup>16</sup>. Six (6) of them are appointed by the governor and one (1) is selected by PREPA's clients to represent their interest<sup>17</sup>. Law 57, from 2014, established that PREPA's board had three representatives of the consumers' interest elected by PREPA's clients<sup>18</sup>. That was reduced after Governor Rosselló came to power. The end result is that the representation of the Governor and its political party's interest increased at the expense of the consumers' interest, which representation was reduced in a 67%<sup>19</sup>.

Since the 2014, political parties have tried to cover up the politization in PREPA's Board by balancing PREPA's powers with (1) the creation of three entities (the Energy Commission, the State Office for Energy Policy, and the Independent Office for Consumers Advocate) and (2) the professionalization of PREPA's Board members. Those two strategies have proven to

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<sup>15</sup> See <https://rhg.com/research/americas-biggest-blackout-2/>

<sup>16</sup> Law 83 published in PREPA's official website (<https://aeepr.com/es-pr/quiénes-somos/portal-junta-de-gobierno/acerca-de-la-junta-de-gobierno>).

<sup>17</sup> In an election supervised by the Office of the Ombudsman ((<https://aeepr.com/es-pr/quiénes-somos/portal-junta-de-gobierno/acerca-de-la-junta-de-gobierno>)).

<sup>18</sup> <https://aeepr.com/es-pr/QuienesSomos/Documents/Ley57.pdf>

<sup>19</sup> <http://energia.pr.gov/wp-content/uploads/2018/11/Ley-57-2014.pdf>

be problematic at best, meaningless at worst, in terms of actual stakeholder representation<sup>20</sup>. The creation of three parallel entities does not guarantee the balance of power for the same reason why the positions at PREPA are politized: the appointments still come directly or indirectly from political figures, the governor and/or the senate, which represent political parties and the interests of those that contributed to their political campaign. In fact, the politization of PREPA’s leadership has increased and even reified in recent years, after Governor Rosselló required through an executive order that members of the boards of public corporation were completely aligned with his policies to the risk of being fired<sup>21</sup>.

The end result is that as Figure 1 shows, there has been almost no change in the composition of PREPA’s Board since 1953, at least in terms of gender, race, socio-economic status and societal sector.



*Figure 1 PREPA’s Board in 1953 during a meeting with the then Governor of Puerto Rico Luis Muñoz Marín.<sup>22</sup>*

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<sup>20</sup> An example of this is the appointment of Executive Director Walter Higgins in 2018 (<https://www.utilitydive.com/news/prepa-ceo-higgins-steps-down-after-4-months-on-the-job/527641/>) and the performance of Interim Executive Director during only a month of occupying the position. Interim Executive Director, Engineer Carlos J. Castro (June 2015) approved an amendment to the contract that the AEE has with the AES which was a clause that prohibited disposing of its waste from coal anywhere on the island. The new amendment permitted the AES to dispose of its toxic waste in any landfill on the island to save millions of dollars. The deal broke the accords that the AES had made with the Planning Board in May 1996 in which it committed to dispose the ashes outside of Puerto Rico. Carlos Castro applied new methods to prevent theft of electricity by installing new energy meters and amended the law of Servidumbres (Easements) sanctioning anyone who altered a meter with three years in prison and a fine of \$10,000. This occurred after the AEE was losing millions in profits from theft and pressure from groups in the renewable energy sector. He also began the operation of a generator plant which uses gas produced from the decomposition of waste found in the municipal landfill of Fajardo to provide electricity to 1,400 homes. The AEE will buy the Kilowatts from Landfill gas Technologies, LLC, which is the company in charge of cogeneration of electricity. The information compiled about Interim Executive Director, Engineer Carlos J. Castro was provided by the students of the course “Introduction to Public Administration”, currently taught by Dr. Cecilio Ortiz Garcia at the Social Sciences Department, University of Puerto Rico-Mayaguez.

<sup>21</sup> See <https://www.noticel.com/ahora/cambios-en-juntas-pblicas-bajo-rossell-nevares/609406524>

<sup>22</sup> Photo: <http://bibliotecadigital.uprrp.edu/cdm/ref/collection/ELM4060/id/1662>





Figure 2 PREPA's Board in 2018 during a meeting with current Governor Ricardo Rosselló<sup>23</sup>.

There was an attempt, during the reconstruction process after hurricane Maria, to transfer power from internal political forces to external “neutral” parties” through the intervention of the Southern States Energy Board<sup>24</sup>. In the SSEB proposal to the Department of Energy there were several scheduled stakeholder engagement activities. However, in the 21<sup>st</sup> century, stakeholder involvement and public participation in energy policy cannot be treated as a collection of activities. They need to be continuous processes based on long term relationships and trust. In this sense, the insertion of the SSEB and other very reputable organizations such as the Rocky Mountain Institute have been insufficient to curb the current regime’s need for enhanced centralization and control. An example of this is the unfulfilled Senate’s commitment to use RMI’s report as the basis for the new regulatory framework for PREPA’s privatization. The report, that included more or less multisectorial agreements was significantly altered by the political bodies before even considering it<sup>25</sup>.

In fact, treating stakeholder involvement and engagement as discrete activities and/or projects, instead of as processes, have brought other subtler but also more pervasive forms of exclusion. Those forms of exclusion are based on geography, language and income, among others. Example of this are the events coordinated by non-governmental organizations (sometimes with government funding and always with government participation) after hurricane Maria to discuss the future of Puerto Rico’s electrical system. In all the twelve (12) events held between January of 2017 and March 2019, the main language used was English, even though according to the US Census only 22% of the population in Puerto Rico speaks that language fluently enough to participate in a discussion of this nature. Seven (7) of those events were held outside of Puerto Rico, and the rest occurred only in the capital city of San Juan. Nine (9) out of twelve required an entrance fee of between \$50 and \$1,500 per person, and the rest were by invitation only.

<sup>23</sup> Photo: Metro PR, 2018.

<sup>24</sup> <https://www.sseb.org/strategizing-pr/>

<sup>25</sup> Please compare the report from The Collaborative (<https://www.rmi.org/insight/public-collaborative-for-puerto-ricos-energy-future/>) and the bill presented in the PR Senate 1121. See the coverage in a local newspaper about the commentary by the consumer’s representative to PREPA’s board, Mr. Tomás Torres Placa in <https://www.noticel.com/ahora/gobierno/incongruente-el-plan-de-la-ae-para-representante-del-consumidor/1060823896>.

The result of a defective governance model that has no transparency, no accountability, and no stakeholder representation, is the absence of a clear mission for PREPA for the 21<sup>st</sup> century. After sixty-five (65) years of hierarchical, centralized, top down, and captured governance processes, how can a transition towards resilience and sustainability be enabled by a governance model that refuses to be transformed? This “legacy governance model” has demonstrated high levels of resilience, to the point that not even hurricane Maria could shake it down. If political parties act on behalf of their contributors, which are private entities, how can privatization address this problem?

In my graduate education, one of the first things we learned about disasters is that they are socially constructed. Disasters are the intersection between a natural event and a vulnerable society<sup>26</sup>. Societies ARE NOT vulnerable. They are MADE vulnerable through economic, political and cultural processes. The same can be said about electrical systems; they do not have intrinsic value. Their value lies on the services that it can provide. Those services are health, life, education, wellbeing, communications, etc. We do not know how many of the 2,975 deaths now officially linked to Hurricane Maria were related to the lack of electricity<sup>27</sup>. But we do know that the lack of electricity prevented the authorities to keep reliable records regarding those who were dying. Then, the questions that we need to ask ourselves are: a) are we constructing a more resilient and sustainable society with the reconstruction of our electrical system? and b) how does privatizing the electrical system helps in reducing our vulnerabilities and increase our wellbeing?

Privatization might not be the cure for PREPA’s most severe ailments. This is especially true in an era of system decentralization, deconcentrated systems operation, independent renewable technologies integration and the ever-growing desire for PREPA’s costumers to become independent from the main grid<sup>28</sup>. Research in the modern public administration show that the key to the effective governance of public systems is the decentralization of

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<sup>26</sup> For ongoing research on vulnerability of coastal communities after hurricane Maria, see <https://lite.elnuevodia.com/noticias/locales/nota/midenlaresilienciapost-maria-2424647/>

<sup>27</sup> See the report produced by George Washington University about the deaths related to the impact of Hurricane Maria in Puerto Rico: *“Our study shows that physician lack of awareness of appropriate death certification practices after a natural disaster and the Government of Puerto Rico’s lack of communication about death certificate reporting prior to the 2017 hurricane season limited the count of deaths that were reported as related to Hurricane María. Individuals authorized to complete death certificates include physicians and forensic physicians; however, most physicians receive no formal training in death certificate completion, in particular in a disaster. When asked about the CDC guidelines the PRVSR circulated after the hurricane that recommended physicians fill out a section in the death certificate with information or other conditions that contributed to the death, interview respondents indicated lingering confusion about the guidelines, while others expressed reluctance to relate deaths to hurricanes due to concern about the subjectivity of this determination and about liability. The PRVSR offices sustained damage and did not have power to operate for some time after the hurricane, and death registration was delayed. Nevertheless, based on our findings in the assessment of death certification quality, the disaster does not appear to have affected the completeness of the certificates.”*

<https://publichealth.gwu.edu/sites/default/files/downloads/projects/PRstudy/Acertainment%20of%20the%20Estimated%20Excess%20Mortality%20from%20Hurricane%20Maria%20in%20Puerto%20Rico.pdf>.

<sup>28</sup> See [https://www.homerenergy.com/pdf/RMI\\_Grid\\_Defection\\_Report.pdf](https://www.homerenergy.com/pdf/RMI_Grid_Defection_Report.pdf)



decision-making processes. Privatization is but just one of several institutional actions PREPA could undertake to face its future. Alternatives also include other institutional arrangements such as deconcentration<sup>29</sup>, delegation<sup>30</sup>, devolution<sup>31</sup>, deregulation<sup>32</sup> and denationalization<sup>33</sup>. The problem is that other alternatives cannot be explored if we are unable to define a vision for the future.

Then, what is the purpose of the privatization of PREPA? Is it to guarantee energy security, energy justice, human and social wellbeing, health, and economic prosperity for all Puerto Ricans? The only apparent advantage of privatization as a course of action is that it guarantees immediate benefits to private pockets, and in turn the current political regime. The criteria that is being used to select privatization among the many forms of decentralization is that it would be desirable for private entities; not necessarily for the public good. In the aftermath of Hurricane Maria, and faced with increasing levels of uncertainty about the magnitude and frequency of extreme climatic events, is that what we want? At the same time, due to the capture of the main political parties, PREPA is already privatized by what are essentially social clubs. Therefore, and despite the positive outcomes that privatizing PREPA's assets might bring, if equal importance is not given to the innovative implementation of a more just, democratic, deconcentrated and representative governance model, no real transition to a sustainable energy future will be possible in PR.

Regardless of the final decision regarding the privatization of PREPA and the reconstruction post Maria, we believe that substantial changes need to occur in the "architecture of representativeness" of our electric system, and that substantial changes need to be demanded from the internal accountability bodies of the public corporation as well as the enhancement of external accountability structures. Internally, we call for the reconstruction of PREPA's governing board based on stakeholder representativeness. We visualize the ultimate internal decision-making body of the new PREPA to reflect the interconnectedness of the electric system to every important critical infrastructure in Puerto Rico. Those sectors that saw themselves lost and without "power" (electric and political) need to regain that power through their representativeness in PREPA's internal accountability design. See Figure 3 for a visual description of the new model for stakeholder representation in PREPA's governance structure. This design should include properly designated representatives of low income and vulnerable communities, commerce and small businesses, health service

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<sup>29</sup> Deconcentration is the simplest form of decentralization. In theory, it refers to when decisions are taken at the regional level instead of at the state level.

<sup>30</sup> Delegation refers to when decisions are taken by special authorities that do not belong to the normal governmental structure. PREPA is an example of delegation when in 1941 the government delegated in this public corporation the administration of an electrical system property of the people of Puerto Rico.

<sup>31</sup> Devolution refers to empowering local organizations unaffiliated to the state for the management of a resource or communal infrastructure. The management of the People's Forest in Adjuntas by Casa Pueblo and the more than 250 community aqueducts in Puerto Rico are examples of devolution.

<sup>32</sup> Deregulation is the dismantling of price controls, fees, and entrance barriers to allow market forces to determine decisions by economic actors.

<sup>33</sup> Denationalization is the most extreme case of decentralization, which refers to the selling of public assets to private entities.

organizations, industrial and communications sector, academia, as well as democratically selected consumer representatives in a ratio that properly reflects the importance of our electrical systems to the different lifelines of Puerto Rican society. Also, one seat shall be reserved for a Vieques and Culebra resident due to their geographic location and current political isolation. This group should not, and will not, be dependent of executive nomination or confirmation. It shall be ran as an independent citizen’s representative group. Externally, since the explicit mission of creating an energy vision for Puerto Rico is not included in any of the external bodies created by law so far, we propose the creation of at least five (5) regional citizen’s panels. INESI has already started in the capacity building of potential panel members in collaboration with NREL and the DOE.

Figure 3 New internal-external governance representativeness model for PREPA.



Regarding the Executive Director of PREPA, my position is that independently of the professional experience and or training, that person should have the following three characteristics: a) commitment with the real transformation of our electrical system towards resilience, sustainability and autonomy<sup>34</sup>, b) a socio-technical vision of the electric

<sup>34</sup> Currently, our system depends almost completely in imported fossil fuels that cost between \$1,000,000 M and \$3,000,000 M a year to the people of Puerto Rico. Due to that cost, the energy costs to Puerto Ricos’

system, that considers its social dimensions as well as the technical ones, and c) the political maturity to bring openness to not only PREPA's governance but our also energy governance in general.

The last point that I want to bring with my testimony, and probably one of the strongest, is the need of bringing the University of Puerto Rico and the local expertise to both, the reconstruction of our electrical system and the decision-making processes related to our electric future. The UPR, the state university system, is the biggest repository of knowledge and is an investment that the people of Puerto Rico has maintained since our constitution was created, precisely to guarantee a better future. To exclude that investment from the current processes is not only unwise but also irresponsible. Right now, the Fiscal Control Board and the current administration are doing just that while imposing indiscriminate budget cuts that will definitively hinder the UPR capacity to contribute to these processes<sup>35</sup>.

The fact that it is excluded do not mean that the UPR is sitting idle. In fact, against all odds and without institutional support, members of the academic community have been conducting research that suggest that the current administration course of action is plain wrong regarding issues of vital importance such as climate change, energy planning, health impacts of electric generation, privatization of essential services, limiting access to higher education, technological and community development, and energy and environmental justice, among many others. We have also submitted at the request of members of this committee, a proposal for the creation of a Sustainable Reconstruction Technical Advisory Committee (SRTAC). This expert group would become embedded in all aspects of critical infrastructure development and reconstruction ensuring that local knowledge is an integral part of the sustainable transition of Puerto Rico. A copy of this proposal is included with my written testimony.

Thank you very much to the honorable members of the committee for the time and the opportunity. I remain available for whatever further questions the committee may have on this topic.

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residents are several times higher than their equivalent in the US (State of Energy Report 2017, by The UPR's National Institute for Energy and Island Sustainability, unpublished manuscript submitted to the PR State Office for Energy Policy).

<sup>35</sup> Current policy implemented by the Fiscal Control Board and the Current State Administration contemplates dramatic budget cuts for the university, decreasing contributions to employee's health insurance and pensions, the closing of the smaller campuses and academic programs that are vital for a sustainable reconstruction and development, among others (<https://protestamos.net/category/plan-sos-upr/>)